IN THE CLAIMS:

Please amend pending Claims 1, 4-8, 10-13, 16-18 and 20, and add new Claims 21-24:

1. (Currently Amended) An apparatus for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

a cradle ~~attached~~ coupled around at least part of said portion of the body of said patient;

a length of wire ~~having a first end and a second end, said length of wire forming a loop in a central portion thereof, said loop connected around~~ coupled to said cradle and ~~thereby encircling~~ responsive to motion of said portion of the body of said patient; and

a voltage measuring device having an ~~a first~~ input ~~connected~~ coupled to said ~~first end of said~~ wire~~, a second input connected to said second end of said wire,~~ and an output representative of ~~representing~~ the motion of said portion of the body of said patient.

2. (Original) The apparatus of Claim 1, wherein said cradle is formed from a thin polycarbonate plastic strip.

3. (Original) The apparatus of Claim 1, wherein said length of wire is formed from a high resistance lead.

4. (Currently Amended) The apparatus of Claim 1, wherein said voltage measuring device comprises:

a Faraday shield forming an enclosure;

two RF filters mounted in said Faraday shield, each of said RF filters having an input coupled to said wire and an output~~, said inputs of said RF filters forming said first input and said second input of said voltage measuring device, respectively~~;

a differential amplifier mounted within said enclosure and having two inputs and an output, each of said inputs ~~connected~~ coupled to a respective output of one of said two RF filters;

a gradient filter mounted within said enclosure and having an input and an output, said input of said gradient filter ~~connected~~ coupled to said output of said differential amplifier, and

a transmitter ~~means for transmitting an output signal~~ mounted within said enclosure and having an input connected to said output of said gradient filter and an output representative of the motion of said portion of the body of said patient.

5. (Currently Amended) The apparatus of Claim 1, wherein said voltage measuring device comprises:

a Faraday shield forming an enclosure and ~~a first input of said voltage measuring device~~ coupled to said wire;

an RF filter mounted in said Faraday shield having an input coupled to said wire and an output~~, said input of said RF filter forming a second input of said voltage measuring device~~;

a differential amplifier mounted in said enclosure and having two inputs and an output, one of said inputs ~~connected~~ coupled to said output of said RF filter and the other of said inputs connected to said Faraday shield;

a gradient filter mounted in said enclosure and having an input and an output, said input of said gradient filter ~~connected~~ coupled to said output of said differential amplifier, and

a transmitter ~~means for transmitting an output signal~~ mounted in said enclosure and having an input ~~connected~~ coupled to said output of said gradient filter and an output representative of the motion of said portion of the body of said patient.

6. (Currently Amended) An apparatus for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

a length of wire ~~having a first end and a second end, said length of wire forming a loop in a central portion thereof, said loop connected~~ coupled around at least part of said portion of the body of said patient; and

means for measuring a voltage developed on said length of wire in a magnetic field, said means for measuring a voltage positioned within said magnetic field and having a first input connected to said ~~first end of said~~ wire~~, a second input connected to said second end of said wire,~~ and an output representing the motion of said portion of the body of said patient.

7. (Currently Amended) An apparatus for measuring motion of a portion of the body of a patient and an electrocardiogram of a patient in a magnetic field, comprising:

~~a~~ first and second ECG ~~electrode~~ electrodes attached to said patient;

first and second ECG leads connected respectively to said first and second electrodes, one of said ECG leads enclosing at least part of said portion of the body of said patient;

~~a first ECG lead having a first end connected to said first ECG electrode and a second end;~~

~~a second ECG electrode attached to said patient;~~

~~a second ECG lead having a first end connected to said second ECG electrode and a second end, said second ECG lead forming a loop in a central portion thereof, said loop connected around said portion of the body of said patient;~~ and

a voltage measuring device having an ~~a first~~ input ~~connected~~ coupled to said ~~second end of said first~~ ECG ~~lead~~ leads ~~, a second input connected to said second end of said second ECG lead~~ and an output representing the motion of the body of said patient and the electrocardiogram of said patient.

8. (Currently Amended) The apparatus of Claim 7, further comprising a cradle ~~attached~~ coupled around at least part of said portion of the body of said patient ~~between said loop formed by said second ECG lead and said portion of the body of said patient~~ and coupled to said one of said ECG leads enclosing at least part of said portion of the body of said patient.

9. (Original) The apparatus of Claim 8, wherein said cradle is formed from a thin polycarbonate plastic strip.

10. (Currently Amended) The apparatus of Claim 7, wherein said ~~first~~ ECG ~~lead and said second ECG lead~~ leads are formed from high resistance leads.

11. (Currently Amended) The apparatus of Claim 7, wherein said voltage measuring device comprises:

a Faraday shield forming an enclosure;

two RF filters mounted in said Faraday shield, each of said RF filters having an input coupled to a respective one of said ECG leads and an output~~, said inputs of said RF filters forming said first input and said second input of said voltage measuring device, respectively~~;

a differential amplifier mounted within said enclosure and having two inputs and an output, each of said inputs ~~connected~~ coupled to a respective output of one of said two RF filters;

a gradient filter mounted within said enclosure and having an input and an output, said input of said gradient filter ~~connected~~ coupled to said output of said differential amplifier, and

a transmitter ~~means for transmitting an output signal~~ mounted within said enclosure and having an input ~~connected~~ coupled to said output of said gradient filter and an output representative of the motion of said portion of the body of said patient.

12. (Currently Amended) The apparatus of Claim 7, wherein said voltage measuring device comprises:

a Faraday shield forming an enclosure and ~~a first input of said voltage measuring device~~ coupled to a first one of said ECG leads;

an RF filter mounted in said Faraday shield having an input coupled to a second one of said ECG leads and an output~~, said input of said RF filter forming a second input of said voltage measuring device~~;

a differential amplifier mounted within said enclosure and having two inputs and an output, one of said inputs ~~connected~~ coupled to said output of said RF filter and the other of said inputs connected to said Faraday shield;

a gradient filter mounted within said enclosure and having an input and an output, said input of said gradient filter ~~connected~~ coupled to said output of said differential amplifier, and

a transmitter ~~means for transmitting an output signal~~ mounted within said enclosure and having an input ~~connected~~ coupled to said output of said gradient filter and an output representative of the motion of said portion of the body of said patient.

13. (Currently Amended) A method for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

coupling ~~attaching~~ a cradle ~~around~~ to at least part of said portion of the body of said patient;

coupling ~~forming a loop in a central portion of~~ a length of wire ~~having a first end and a second end~~ to said cradle;

~~positioning said loop around said cradle so that said loop encircles said portion of the body of said patient~~; and

measuring the voltage developed on said length of wire to generate a signal representing the motion of said portion of the body of said patient.

14. (Original) The method of Claim 13, wherein said cradle is formed from a thin polycarbonate plastic strip.

15. (Original) The method of Claim 13, wherein said length of wire is formed from a high resistance lead.

16. (Currently Amended) A method for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

~~forming a loop in a central portion of a length of wire having a first end and a second end;~~

positioning ~~said loop~~ a length of wire around at least part of said portion of the body of said patient; and

measuring, within said magnetic field, a voltage developed on said length of wire in a magnetic field to generate a signal representing the motion of said portion of the body of said patient.

17. (Currently Amended) A method for measuring motion of a portion of the body of a patient and an electrocardiogram of a patient in a magnetic field, comprising:

attaching a first ECG electrode and a second ECG electrode to said patient;

connecting a first ECG lead to said first ECG electrode at a first end thereof;

connecting a second ECG lead to said second ECG electrode at a first end thereof;

coupling ~~forming a loop in a central portion of~~ said second ECG lead around at least part of said portion of the body of said patient; and

~~positioning said loop of said second ECG lead around said portion of the body of said patient; and~~

measuring a voltage developed between a second end of said first ECG lead and a second end of said second ECG lead ~~device~~ to generate a signal representing the motion of said portion of the body of said patient and the electrocardiogram of said patient.

18. (Currently Amended) The method of Claim 17, further comprising the step of positioning a cradle attached around at least part of said portion of the body of said patient, said cradle coupled to ~~between said loop formed by~~ said second ECG lead ~~and said portion of the body of said patient~~.

19. (Original) The method of Claim 18, wherein said cradle is formed from a thin polycarbonate plastic strip.

20. (Currently Amended) The ~~apparatus~~ method of Claim 17, wherein said first ECG lead and said second ECG lead are formed from high resistance leads.

21. (New) An apparatus for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

means for detecting motion of said portion of the body of said patient; and

a voltage measuring device connected to said detecting means and having an output representing the motion of said portion of the body of said patient.

22. (New) The apparatus of Claim 21, wherein said means for detecting motion of said portion of the body of said patient comprises:

a cradle coupled around at least part of said portion of the body of said patient;

a length of wire coupled to said cradle and ~~t~~ responsive to motion of said portion of the body of said patient.

23. (New) The apparatus of Claim 21, wherein said means for detecting motion of said portion of the body of said patient comprises:

first and second ECG electrodes attached to said patient; and

first and second ECG leads connected respectively to said first and second electrodes, one of said ECG leads enclosing at least part of said portion of the body of said patient.

24. (New) An apparatus for measuring motion of a portion of the body of a patient in a magnetic field, comprising:

a cradle adapted to be coupled around at least part of a portion of the body of a patient;

a length of wire coupled to said cradle and, when coupled to a patient, responsive to motion of said portion of the body of said patient; and

a voltage measuring device having an input coupled to said wire and an output representative of the motion of said portion of the body of said patient.